

HUMAN NMDAR1 cDNAS

HIPPOCAMPUS NMDA10
14000 BPI

HIPPOCAMPUS NMDA11
14000 BPI

HIPPOCAMPUS NMDA7
13032 BPI

HIPPOCAMPUS NMDA3
1590 BPI

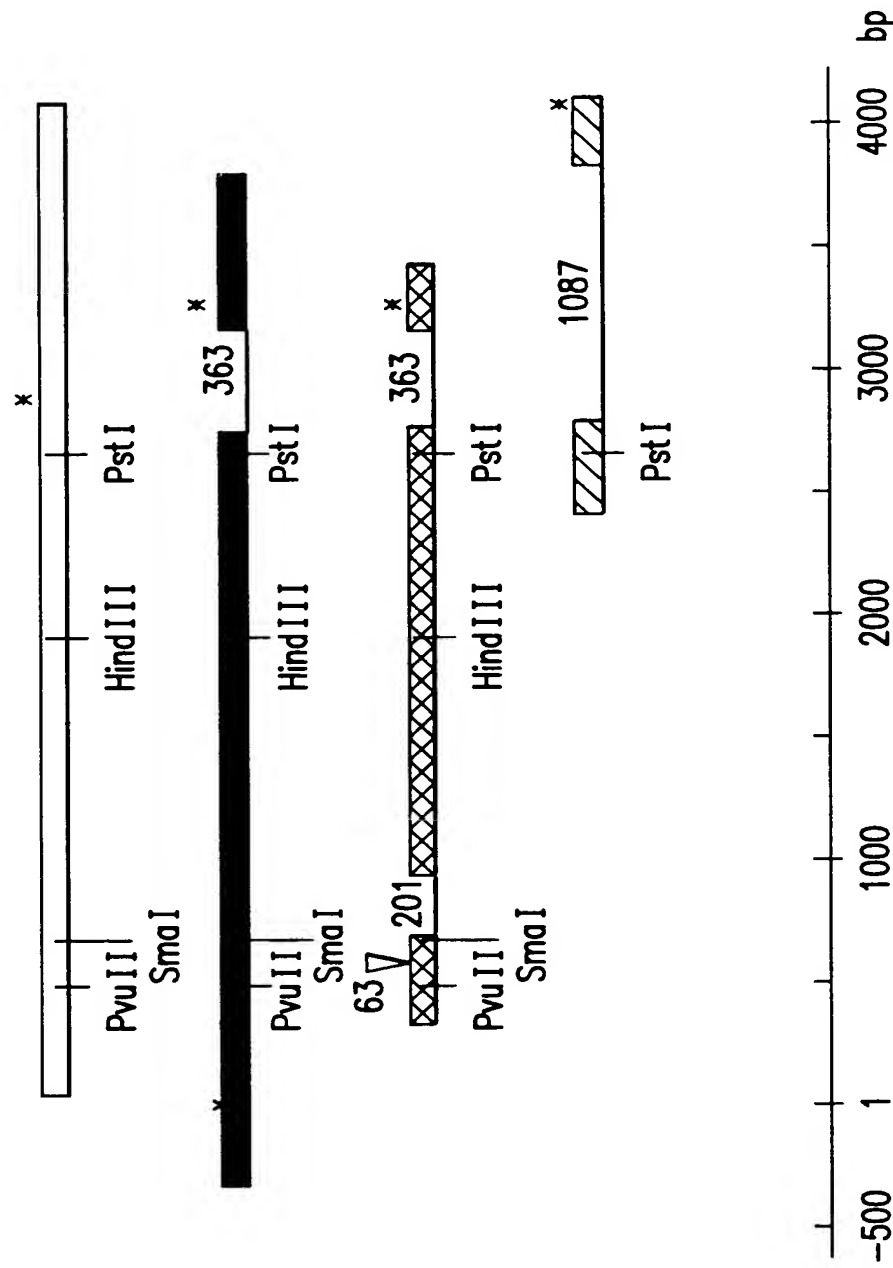


FIG.1

HUMAN NMDAR1A CONSTRUCTS

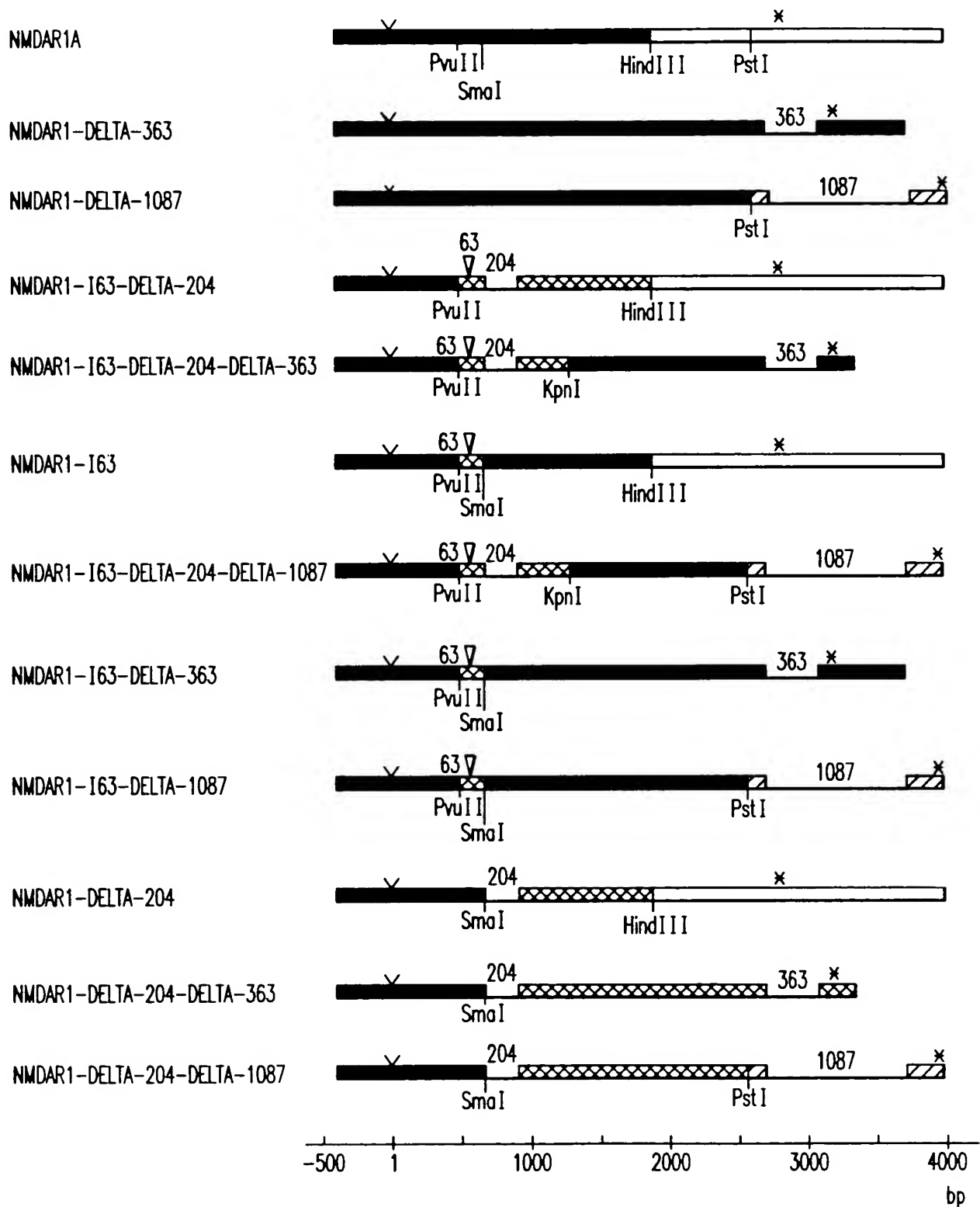


FIG.2

NUCLEOTIDE SEQUENCE OF THE HUMAN MDARIA RECEPTOR

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1  ccagccgggc gttcgagact gtgcccgccc ccgttcagc acccgggaca gcgcggcgc cgtgggctg agcgcgagc ccccgcgac gcttcagccc
101 ccttccctc gcccgagctc ccgggacgc cgtcccggg gagcgtggc gtccgagcc cgcggggccg ggcggcgca ggcggcccg gaagcccccgc
      - START
201 gggggaagc cagggggccc cgcgttcgc cgcgcgagc ccagggccc cagcgagcc cATGACACC ATGGCTGC TGAGCTGC CCTGCTGTTT
301 TCGTCTCGG TCGCCCGTCC CGCGTGGAC CCCAGATCG TCAACATGG CGCGTCTG AGCAGCCGA AGCAGAGCA GATTTCCGC GAGCCCGTGA
401 ACCAGGCCAA CAAGCGGCAC GGTCTCTGA AGATTGAGT CAATGCCACC TCGTCAAGC ACAAGCCAA CGCATCCGG ATGGCTGCTG CGGTGTGCGA
501 GGACCTCATC TCCAGCCAGG TCTAGCCCAT CCTAGCTTAG CATCCACCTA CCCCACGA CCACITCACT CCCACCCCTG TCTCTACAC ACCCGGCTTC
601 TACCGCATAC CGGTGCTGGG GCTGACCACC CGCATGTCCA TCTACTGGA CAAGACATC CACCTGAGCT TCTGGCCAC CGTGGCCGCC TACTCCACCC
      Pvu II
701 AGTCCAGGCT GTGGTTTGAG ATGATCCGTG TCTACAGCTG GAACACATC ATCTGCTGG TCAGCGACGA CCACGAGGC CGCGCGGCTC AGAAAGCCTT
      63 bp INSERT
801 GGAGACGCTG CTGGAGGAGC GTGAGTCCAA GGCAGAGAGG GTGCTGCAGT TTGACCCAGG GACCAGAAC GTACGCGCCC TGCTGATGGA GCGGAAGAG
      Sma I
901 CTGGAGGCCC GGTTCATCAT CCTTCTGCC AGCGAGGAGG ATGCTGCCAC TGTATACCG GCAGCGCGGA TGTGAACAT GACGCGCTCC GGTACGCTGT
      Bgl II
1001 GGCTGTCCG CGAGCGGAG ATCTCGGGA AGCCCCCTGG CTAGCCCCCA GACGGCATCC TCGGCTGGA GCTCATCAAC GGCAGAAGC AGTCGCCCCA
1101 CATCAGGAC GCGGTGGCG TGGTGGCCA GCGGTGGAC GAGTCTCTG AGAGGAGAA CATCACGAC CGCGCGCGG GCTGCTGG CAACACCAAC
1201 ATCTGAAGA CCGGGCCGCT CTTCAGAGA GTGCTGATGT CTTCGAAGTA TGGGATGGG GTGACTGGTC GGTGGAGTT CAATGAGGT GGGGACCGGA
1301 AGTTGCCAA CTACAGCAT ATGAACCTGC AGAACCGCAA GTGGTGCAA GTGGCATCT ACAATGGCAC CCAGTCTATC CCTAATGACA GGAAGATCAT
      Kpn I
1401 CTGGCCAGGC GGAGAGACAG AGAGCCCTCG AGGTACCAG ATGTCCACCA GACTGAAGAT TGTAGCATC CACCAGGAGC CCTTCGTGA CGTCAAGCCC
1501 AGCTGAGTG ATGGACATG CAAGGAGGAG TTACAGTCA ACAGCGACC AGTCAAGAG GTGATCTGCA CGCGGCCAA CGACAGCTCG CCGGGAGCC
1601 CCGCCACAC GGTGCTCAG GTTGTGCTG CAGCTGCTC ATCAGCTGG CACGACCAT GAATTCACC TACGAGTGC ACCTGGTGGC
1701 AGATGGCAAG TTCGGACAC AGSAGCGGT GAACAACAGC AACAAGAGG AGTGAATGG GATGATGGC GAGCTGCTCA GCGGCGAGC AGACATGATC
1801 GTGGCGCCG TAACATATA CAACAGCGC GCGCAGTACA TCGAGTTTC CAAGCCCTTC AGTACCAGG GCCTGACTAT TCTGGTCAAG AAGGAGATTG
1901 CCGGAGCAC GCTGGACTCG TTATGACCG CGTTCAGAG CACACTGCG CTGCTGGTG GCGTGTGGT GCAGTGGTG CCGGTGATGC TGTACCTGCT
2001 GGACCGCTTC AGCCCCCTCG GCGGTTCAA GGTGAACAG GAGGAGGAG AGTACCCCTG TCTCGGCCA TGTGTTCTC CTGGGGGCTC

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204 bp
DELETION

FIG.3A

HindIII

2101 CTGCTCAACT CCGGCATCGG GGAAGGCGCC CCCAGAGCT TCTCAGCGCG CATCTCGGC ATGGTGTGG CCGGCTTTC CATGATCATC GTGGCTTCT

2201 ACACCGCCAA CCTGGCGCC TTCTGGTGC TGGACCGGCC GGAGGAGGCC ATACCGGCA TCAAGACCC TCGCTGAGG AACCCCTGG ACAAGTTAT

2301 CTAGGCCAG GTGAAGCAGA GCTCCGTGA TATCTACTTC CCGCGCCAGG TGGAGCTGAG CACATGTAC CCGCATATGG AGAAGCACAA CTACGAGCT

2401 CCGCGCGAGG CCATCCAGG CCGTAGAGAC AACAGCTGC ATGCCCTTCA TCGGACTCG GCGTGTCTGG AGTTGAGGC CTGCAGAG TGCGACCTGG

2501 TGACGACTGG AGAGCTGTT TTCCGCTCGG GCTTCGGCAT AGGATGCGC AAGACAGCC CCTGGAAGCA GAAGTCTCC CTGTCCATCC TCAAGTCCCA

2601 CCAGAAATGGC TTCATGAAG ACCTGGGAT GAGCTGGGT CCGTATCAGG AATGTGACTC GCGCAGCAAC GCGGCTGGA CCGTTACTTT TGAGAACATG

2701 GCGCGGTCT TCACTGCTGT AGCTGGGCGC ATCGTGGCGG GATCTTCTT GATTTCATC GAGATTGCTT ACAAGCGGCA CAAGCATGCT CCGCGGAGC

rPst I₁

2801 AGATGCAGCT GGCCTTTGCC GCGTTAAG TGTCGCGGAA GAACCTGCGG GATAGAAGA GTGTAGAGC AGAGCTGAC CCTAAAAGA AGCCACATT

2901 TAGGGCTATC ACCTCCAGCC TGGCTTCAG CTTCAAGAGG CGTAGGTCTT CCAAGACAC GAGCACCGG GTGACCGG GTCTTTGCA AACCAGAAA

3001 GACACAGTGC TCCGCGCAGG CCGTATTGAG AGGAGGAGG GCGAGCTGCA GCTGTGTTCC CCGTATAGG AGAGCTGAG cteccgccc gccctctct

3101 gccctctccc ccgcagacac acagacagac ggacgggaca gggcccgcc ccaegcagag ccccgaggc ccaeggggc gggggaggag caccgccagc

3201 ctecccgagg ctgcgctgc ccgcccgcg gttggccgc tggccggtcc acccgctcc ggcgccgc gtgcgccag cgtgggcta acggcgccct

3301 tgtctgtata ttctatttt gacgagtlac cctcccactg atatcacgg ccgctcaac ctctcagtc cctcgtggtg tggggccccc

3401 ggaggccccc acctgcccag ttggccgag caaggacact gatgggtct gctgctcgg aaggcctgag ggaagccac ccgcccaga gactgccac

3501 cctgggctc ccgtccgtcc gcccgccac ccgctgct ggccggcagc cctgctgga ccaagtgag gaccgagag cctgagagagc gggcagagct

3601 gactcggctg ggcagggccg caggcgctc caggcgagc agggccctg ggtctctg cagtggggag cgggggcta ctgccccag cgggggggc

3701 ttggagcaga gacggcagcc ccatcttcc cagagcaaca gctgagcca cagtgggccc catggccca cctgagctgg tcgcccctcc tcggcgccct

3801 gcgctctct gacgctgag ctccaccct cctcttctt gggcaccgc ccaacaaca cccgctgc ccttgacgc cacagcccg ggtggcgct

3901 gccctcccc accggcgtcc ctgacttccc agctggcag gccctccgc gccctgccc gaatcgagag ggtgagccc ctctctct

4001 cgtccggcct gacgacaga aggggggctc ccggggggtc ccggagcgt ggtcgggac tgtctcaac cctgcctgc acctgggga cgggagagcg

4101 ccaacccccc gcccccgcc tgcgtccgg tgggtgacg gcccgccac ttgtacaga ccagacctcc caggcccca gcgctgct tcccgtgag

4201 cagcggct ctgccctcc gtccccagg tgcagggcg caccgccca ccccacctc ccggtgtatg cagtgtgat gcctaaagga atgtcacg

363 bp
DELETION

1087 bp
DELETION

FIG.3B

CONSTRUCTION OF THE FULL-LENGTH HUMAN NMDAR2C cDNAs

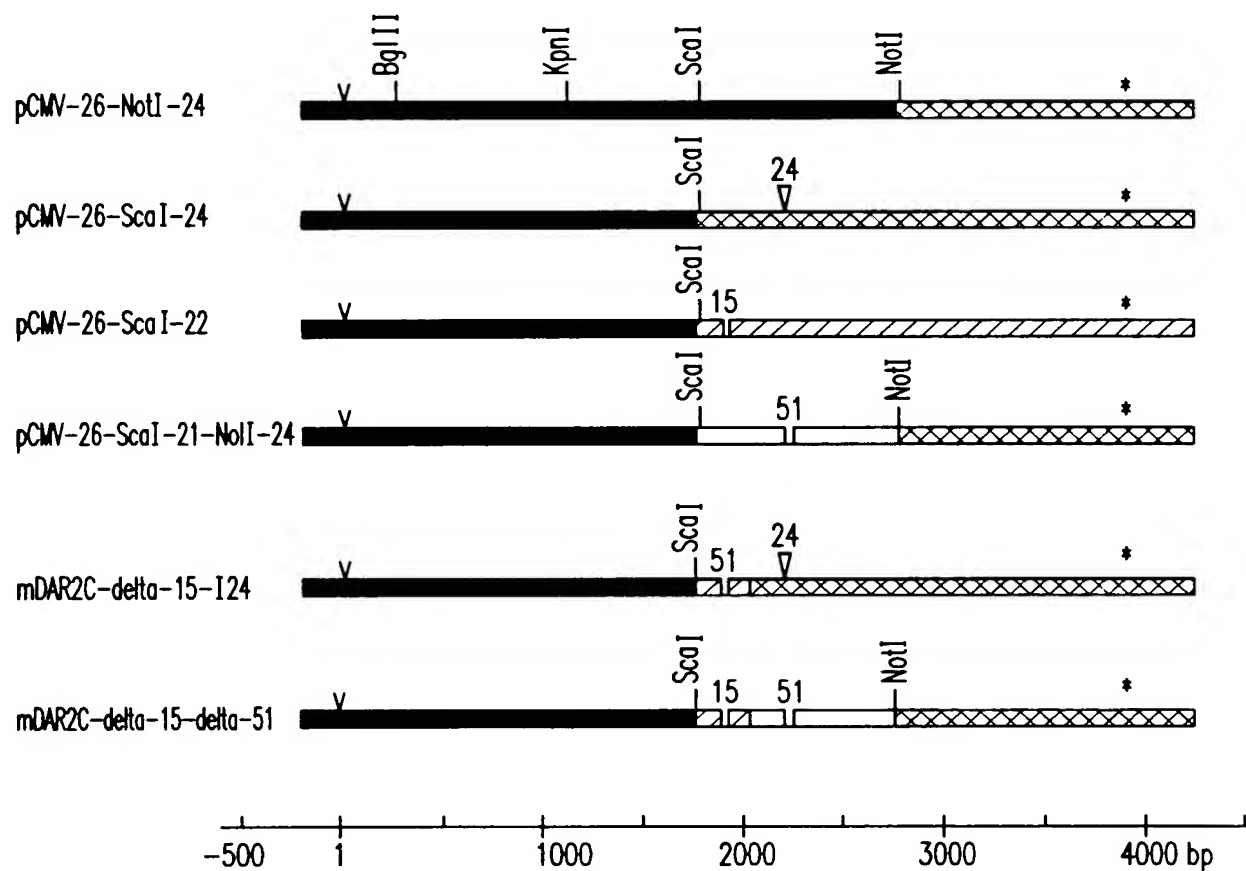


FIG.5

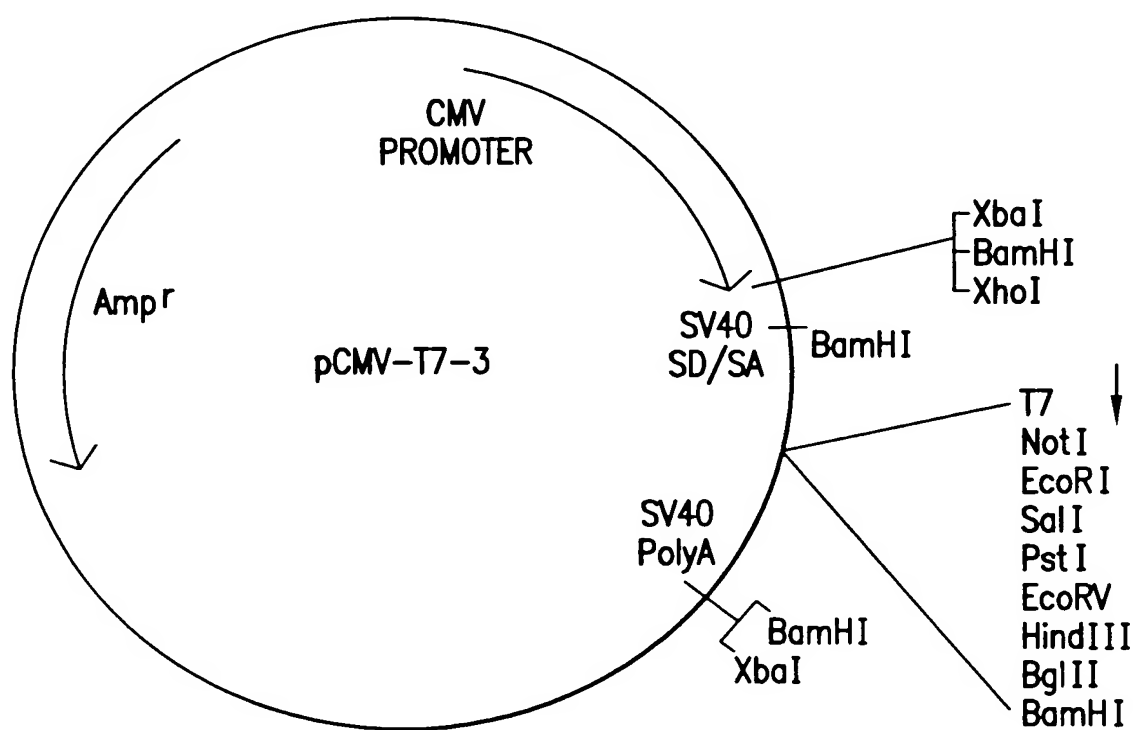
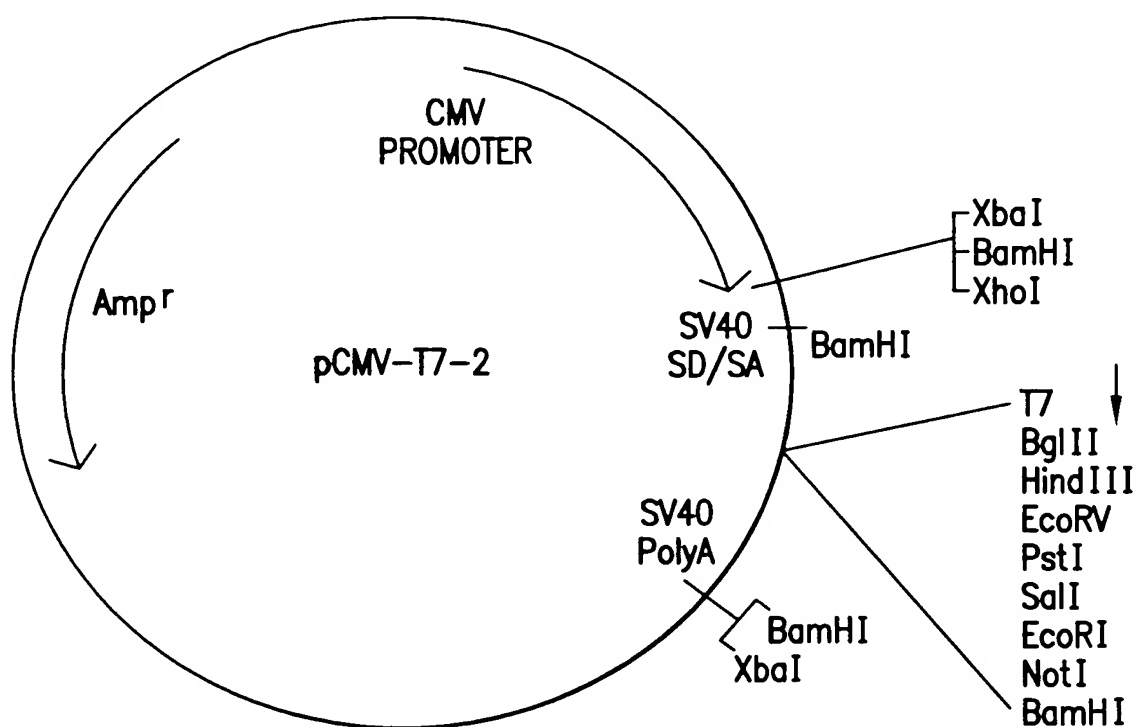


FIG.6